



PVA G

flow through potable water expansion vessels 8 to 33 litre

SD 053 18-09-2020

Introduction

Flow through expansion vessels prevent the build-up of potentially harmful bacteria in potable water by reducing stagnation within the vessel.

The innovative design encourages flushing through the vessel, greatly reducing the opportunity for clusters to form.

NOTE: using the optional Flowjet valve is recommended.

Expansion vessels for heating systems are manufactured to meet the requirements of PED 97/23/EC Directive and BS EN 13831:2007 'Closed expansion vessels with built in diaphragm for installation in water'.

Nitrogen improves the life of the expansion vessel by reducing internal corrosion and prevents the loss of pre-charge pressure.

Nitrogen permeates through rubber slower than oxygen, is far less reactive to steel and does not degrade rubber prolonging the life of the membrane.

Design

Manufactured in carbon steel with a two part welded construction.

Pre-pressurised air chamber with synthetic rubber compound membrane.

Non-replaceable membrane.

The internal surfaces of the vessel in contact with the water are coated against corrosion.

External surfaces have a blue durable powder coated finish.

Suitable for flow temperatures up to 70°C, resistant to ethylene or propylene glycol mixtures and has low gas permeability.

Altecnic expansion vessels are all tested according to the Pressure Equipment Directive.

How It Works

In a closed hot water circuit water cannot be compressed so any increase in volume, created by an increase in temperature, has to be accommodated by an expansion vessel.

When water is cold, the pre-charge pressure forces the diaphragm against the tank towards the inlet.

As the temperature increases, the expanded water volume pushes against the diaphragm creating additional volume for the water to enter.

When the temperature decreases, the pre-charge pressure forces the water from the tank and back into the main heating system.

This maintains a constant pressure within the heating system helping to reduce energy consumption.

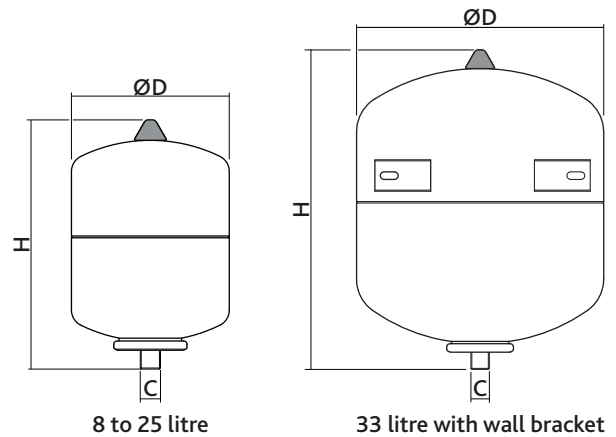
Component

Shell
Connections
Membrane
Coating

Material

Carbon Steel
Carbon Steel
Butyl elastomer
Powder Epoxy

Dimensions



Ref No	Capacity litre	ØD mm	H mm	C Connection	Weight kg
PVA8G	8	206	335	G $\frac{3}{4}$	2.7
PVA12G	12	280	310	G $\frac{3}{4}$	3.7
PVA18G	18	280	410	G $\frac{3}{4}$	4.7
PVA25G	25	280	520	G $\frac{3}{4}$	5.7
PVA33G	33	354	455	G $\frac{3}{4}$	6.5

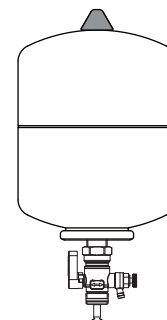
Technical Specification

Max. working pressure: 10 bar
Test pressure: 1.5 x max working pressure
Max. vessel operating temperature: 70° C
Factory pre-charge: 4.0 bar - nitrogen
Water connection thread: BS EN ISO 228
CE marked

Anti-legionella

When fitted with the PVACC Flowjet valve the vessel is anti-legionella.

The PVACC Flowjet valve is supplied as an optional component.



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